

Work Order ID 69734

Wednesday, May 18, 2011 10:36:54 AM



Page 1

Item ID: D2896-1

Accept



Setup Start



Revision ID:

Item Name: Support

Stop



Start Date: 5/18/2011 Start Qty: 20.00



Cust Item ID:

Required Date: 5/20/2011 Req'd Qty: 20.00

Customer:

Reference:

Approvals:

Process Plan:

[Signature]

Date: 11-05-16

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
D2896	Rev U/R 11.10.05	No Hare Powder Contd.							

100	HAAS CNC VERTICAL MACHINING #1	0.00							
-----	--------------------------------	------	--	--	--	--	--	--	--



HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Machine as per Folio FA167

Folio Rev: AA

Dwg Rev: B

SL 11-09-16

20

Deburr

****Program Batch #*****

110	QC1- Inspect dimensions to dimension sheet	0.00							
-----	--	------	--	--	--	--	--	--	--



QC

Memo

0.00

Quality Control

SL 11-9-16

20

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 69734

Wednesday, May 18, 2011 10:36:54 AM



Page 2

Item ID: D2896-1

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Setup Start



Revision ID:

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Item Name: Support

Start Date: 5/18/2011 Start Qty: 20.00



Cust Item ID:

Required Date: 5/20/2011 Req'd Qty: 20.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120



QC

Quality Control

QC8- Inspect parts - second check

0.00

Memo

0.00

ent 11/09/20

20

0

130



HandFinish

Hand Finishing

HandFinishing

0.00

Memo

0.00

Mask Ø0.625" and face and bore as per Detail D and note 4 hole prior to paint

N/A

140



Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel

0.00

Memo

0.00

START TIME: _____ □ OVEN TEMPERATURE:

_____ □ FINISH TIME: _____

N/A

W

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Work Order ID 69734

Wednesday, May 18, 2011 10:36:54 AM



Page 3

Item ID: D2896-1

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Setup Start



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Stop



Item Name: Support

Start Date: 5/18/2011 Start Qty: 20.00



Cust Item ID:

Required Date: 5/20/2011 Req'd Qty: 20.00



Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150



QC

Quality Control

QC3- Inspect Part Finish

Memo

0.00

0.00

N/A

160



SprayPaint

Spray Painting

SprayPaint

Memo

Prime Bore as per QSI 005 4.2.

0.00

0.00

N/A

W

170



QC

Quality Control

QC14- Inspect Spray Paint

Memo

0.00

0.00

N/A

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 69734

Wednesday, May 18, 2011 10:36:54 AM



Page 4

Item ID: D2896-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Support

Start Date: 5/18/2011 Start Qty: 20.00



Cust Item ID:

Required Date: 5/20/2011 Req'd Qty: 20.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180



Packaging

Identify as per dwg & Stock Location: *y-tube*

0.00

Memo

0.00

Packaging

m *n* *09* *27* *20*

190



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

11/10/03 *JF*

MF
11-09-28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, May 18, 2011 10:37:03 AM

Page 1

Work Order ID: 69734



Parent Item: D2896-1



Parent Item Name: Support


Start Date: 5/18/2011

Required Date: 5/20/2011

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP: B 02.11.26 Reformat; Added P/O; Added mask hole KJ
IPP Rev: C As per Rev B 07-04-16 JLM
IPP D 08.03.19 Re-format EC verified by DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK080  D2896-1 TURNING DETAIL		Manufactured	No				Each	6.0000		10		2L 11-09-19	

Location

Loc Qty

Loc Code

MAT060

6

~~47920~~

6

72855

80

\$

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

538-106

DART AEROSPACE LTD		Work Order:	
Description: Support		Part Number:	D2896-1
Inspection Dwg: D2896		Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.152	2.172		2.161	2.163	2.166	2.162	2.165
AB	2.340	2.360		2.340	2.346	2.345	2.349	2.347
AC	3.550	3.560		3.550	3.550	3.550	3.550	3.550
AD	3.770	3.790		3.778	3.778	3.778	3.778	3.778
AE	0.065 x 0.315	0.085 x 0.335		3.15x.065	3.15x.065	3.15x.065	3.15x.065	3.15x.065
AF	1.42	1.48		1.451	1.451	1.451	1.453	1.449
AG	0.833	0.853		.843	.845	.843	.842	.840
AH	0.240	0.260		.250	.250	.250	.250	.250
AI	0.261	0.266		.261	.261	.261	.261	.261
AJ	0.189	0.194		.189	.189	.189	.189	.189
AK	1.990	2.010		2.004	2.005	1.995	1.995	2.006
AL	0.625	0.630		.626	.626	.626	.626	.626
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		.063	.063	.063	.063	.063
AO	0.926	0.946		.943	.942	.946	.945	.943
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				.003	.002	.001	.003	.003

Measured by: SL

Date: 11-09-13

Audited by: gmk

Date: 11/09/20

Prototype Approval:

Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	

11-11-11

DART AEROSPACE LTD		Work Order:	
Description: Support		Part Number:	D2896-1
Inspection Dwg: D2896		Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article
 ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1/6	2/7	3/8	4/9	5/10
HAAS Section								
AA	2.152	2.172		2.165	2.161	2.164	2.171	2.164
AB	2.340	2.360		2.347	2.347	2.347	2.352	2.350
AC	3.550	3.560		3.550	3.550	3.550	3.555	3.553
AD	3.770	3.790		3.778	3.780	3.780	3.780	3.780
AE	0.065 x 0.315	0.085 x 0.335		3.55x0.65	3.35x0.85	3.35x0.85	3.30x0.80	3.30x0.80
AF	1.42	1.48		1.451	1.453	1.454	1.450	1.456
AG	0.833	0.853		.841	.845	.844	.842	.844
AH	0.240	0.260		.250	.250	.250	.250	.250
AI	0.261	0.266		.261	.261	.261	.261	.261
AJ	0.189	0.194		.189	.189	.189	.189	.189
AK	1.990	2.010		1.994	2.008	2.008	1.994	1.992
AL	0.625	0.630		.626	.626	.626	.626	.626
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		.063	.063	.063	.063	.063
AO	0.926	0.946		.944	.944	.943	.946	.944
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				.004	.004	.003	.003	.004

Measured by: <i>DL</i>	Date: 11-09-14
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Audited by: <i>ML</i>	Date: 11/09/20
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Prototype Approval:	Date:
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Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order:	
Description: Support		Part Number: D2896-1	
Inspection Dwg: D2896		Rev: B	
		Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article
 ☐ Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				11	12	13	14	15
HAAS Section								
AA	2.152	2.172		2.163	2.162	2.163	2.167	2.166
AB	2.340	2.360		2.349	2.351	2.350	2.351	2.351
AC	3.550	3.560		3.555	3.555	3.555	3.555	3.556
AD	3.770	3.790		3.781	3.781	3.780	3.780	3.778
AE	0.065 x 0.315	0.085 x 0.335		330X.080	330X.080	330X.080	330X.08	330X.080
AF	1.42	1.48		1.455	1.454	1.455	1.454	1.453
AG	0.833	0.853		0.842	0.846	0.844	0.846	0.844
AH	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AI	0.261	0.266		0.261	0.261	0.261	0.261	0.261
AJ	0.189	0.194		0.189	0.189	0.189	0.189	0.189
AK	1.990	2.010		1.995	1.996	2.004	1.997	2.009
AL	0.625	0.630		0.626	0.626	0.626	0.626	0.626
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		0.063	0.063	0.063	0.063	0.063
AO	0.926	0.946		0.940	0.944	0.944	0.945	0.946
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				0.0005	0.003	0.003	0.002	0.001

Measured by: <i>sh</i>	Date: 11-09-15
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Audited by: <i>amf</i>	Date: 11/09/20
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Prototype Approval:	Date:
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Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
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D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	<i>[Signature]</i>

DART AEROSPACE LTD		Work Order:	6-734
Description: Support		Part Number:	D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	16	17	18	19	20
HAAS Section								
AA	2.152	2.172		2.167	2.166	2.166	2.169	2.167
AB	2.340	2.360		2.351	2.348	2.348	2.347	2.350
AC	3.550	3.560		3.555	3.553	3.555	3.555	3.555
AD	3.770	3.790		3.777	3.777	3.778	3.780	3.780
AE	0.065 x 0.315	0.085 x 0.335		.330x.08	.330x.08	.330x.08	.330x.08	.330x.08
AF	1.42	1.48		1.451	1.453	1.451	1.454	1.455
AG	0.833	0.853		.842	.844	.842	.846	.846
AH	0.240	0.260		.250	.250	.250	.250	.250
AI	0.261	0.266		.261	.261	.261	.261	.261
AJ	0.189	0.194		.189	.189	.189	.189	.189
AK	1.990	2.010		2.005	1.995	2.007	1.997	1.995
AL	0.625	0.630		.626	.626	.626	.626	.626
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		.063	.063	.063	.063	.063
AO	0.926	0.946		.946	.946	.945	.946	.945
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				.003	.003	.004	.002	.002

Measured by:	JL	Date:	11-09-16
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Audited by:	ML	Date:	11/01/20
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Prototype Approval:		Date:	
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A	02.12.13	New Issue	KJ/RF	
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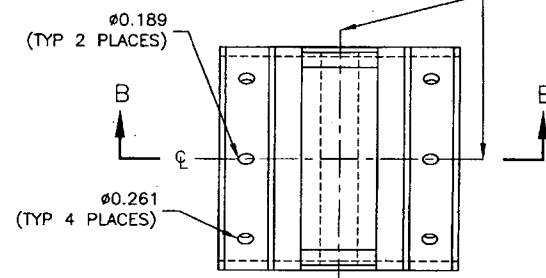
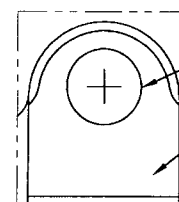
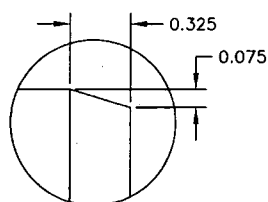
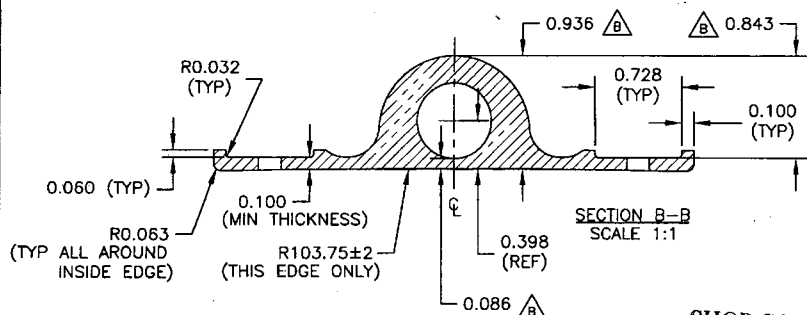
W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

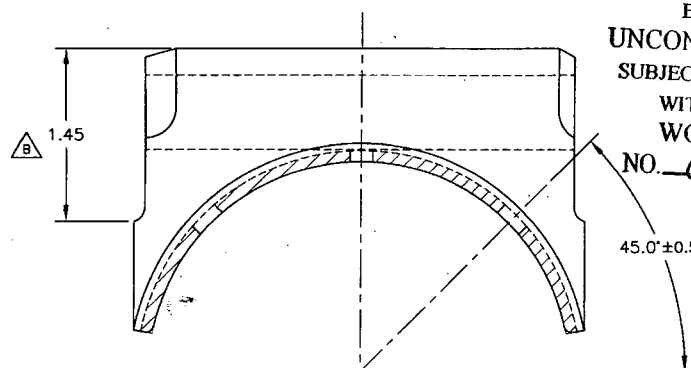
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



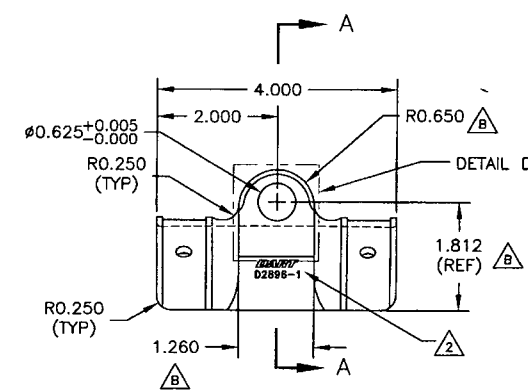
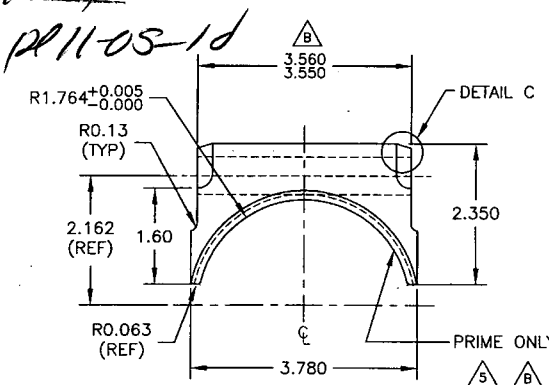
RELEASED
07.04.12
PER BEN 946

HOLES WITHIN 0.005 OVER ENTIRE LENGTH



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 69734

U/R



D2896-1

- 1) MATERIAL: 17-4 PH STAINLESS STEEL
HEAT TREAT TO H900 CONDITION
(900°F FOR 1 HR, AIR COOL)
MIN UTS = 170 KSI (38 HRC)
- 2) IDENTIFY WITH DART LOGO AND PART NUMBER IN THIS AREA
WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP
- 3) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) FINISH: POWDER COAT WHITE (REF 4.3.5.2) PER DART QSI 005 4.3
PRIME INSIDE SURFACE AS SHOWN PER DART QSI 005 4.2
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES

D2896-1

UNDER REVIEW
03.02.11
NO MORE POWDER COAT

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B	07.03.19	INCORP. A1-A4, FINISHING NOTES
A	01.10.19	NEW ISSUE
DESIGN	PH	DART DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA
CHECKED	PH	DRAWING NO. D2896
DATE	07.03.19	TITLE SUPPORT
		REV. B SHEET 1 OF 1 SCALE 1:2

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries